CEC-Plus Release Notes

MANU0219-03
Revision A
May 14, 1998

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1.0 Purpose of Release Notes

These release notes highlight the operational features and known issues associated with the CEC-Plus.

2.0 System Requirements

The CEC-Plus is supported by *ForeThought* 5.2.x and greater in the following devices:

- the TNX-1100 ATM Switch
- the *ForeRunner* ASX-1000 ATM Switch

3.0 Key Features

The CEC-Plus is an intelligent environmental / timing management subsystem. Some of the features of the CEC-Plus include:

- Support for Stratum 3 or 4 timing synchronization (derived from an external DS1 or E1 source, RJ-48C input and output)
- Hitless switching of timing references (when using BITS or line timing)
- Redundant timing input sources
- Support for the following timing modes:
  - BITS (external timing)
  - Automatic (port recovered or line timing)
  - Freerun (timing from internal oscillator)
- Hot-swappability
- Redundant environmental monitoring and alarm relay capability

4.0 Known Issues or Concerns

- It is important that the switch software and the TCM software are at the same revision level; e.g., if you upgrade the TCM software to T_ForeThought_5.2.0, then the switch software on the SCPs must be upgraded to S_ForeThought_5.2.0, and vice versa. It does not matter in which order you upgrade the software. However, there will be a temporary disruption in the timing until the entire upgrade is complete.
- The BITS Tx port from one TCM must never be connected to the BITS Rx port of a second (redundant) TCM in the same chassis. This will result in a timing loop, producing undesirable behavior.
- Redundant TCMs do not support hitless failover between BITS sources if the BITS clocks are a different frequency (i.e., they are not traceable to the same source).
- The PLL status on the standby TCM may be misleading if:
  - the master TCM is in freerun
  - the master TCM is in holdover

  In these cases, the master reports `freerun` or `holdover` while the standby reports `locked`. This occurs because the standby TCM is actually locking to the master TCM's output so that a failure of the master TCM will not cause a timing hit.
- The CEC-Plus is incompatible in a switch or concentrator that is equipped with model A AC power supplies because of excessive electromagnetic interference. If the CEC-Plus is used in an AC-powered unit, the power supplies must be model B supplies.
- To ensure proper operation when using a bootp server with the CEC-Plus and redundant SCPs, the following must be addressed:
  - Each SCP must have a unique IP address in the `bootptab` file. (See the documentation that came with your specific switch or concentrator for more information.)
  - A single IP address should be assigned to both SCPs when operational.
- The Ethernet port is not designed to forward IP traffic that is destined for an IP address that is external to the switch. The Ethernet port on the CEC-Plus is intended to be used only for out-of-band management of TCMs and SCPs within the switch. Therefore, you cannot configure the switch as an IP router.
- A primary TCM in slot X is unable to ping the ie1 (backplane Ethernet) interface of a standby TCM in slot Y, but is able to ping the ie0 (front panel Ethernet) interface of the TCM in slot Y. This is not a bug. The primary TCM's inability to ping the standby TCM's ie1 interface does not pre-empt any functionality, since there is full communication path between the TCMs.
- SCPs cannot ping the ie0 (front panel Ethernet) interface of the TCM.
- Ethernet attached devices external to the TCM cannot ping the ie1 (backplane Ethernet) interface of the active TCM.
- Use of the front panel Ethernet interfaces on the SCPs will prevent the CEC-Plus from working properly.
- For proper operation of the CEC-Plus, both Ethernet interfaces on both TCMs and all SCP Ethernet interfaces must be on the same subnet with the same netmask.
- When using the CEC-Plus in automatic mode, the primary and secondary timing references cannot be defined on the same network module.
- When using the CEC-Plus in a switch or concentrator that is populated with CEM network modules, if timing is recovered from a port on a CEM network module, timing cannot be distributed (via the CEC-Plus) to the ports on that CEM network module.

5.0 Contacting Technical Support

In the U.S.A., customers can reach FORE Systems' Technical Assistance Center (TAC) using any one of the following methods:

1. Select the "Support" link from FORE's World Wide Web page:

   http://www.fore.com/

2. Send questions, via e-mail, to:

   support@fore.com

3. Telephone questions to "support" at:

   800-671-FORE (3673) or **724-742-6999**

4. FAX questions to "support" at:

   724-742-7900

Technical support for customers outside the United States should be handled through the local distributor or via telephone at the following number:

+1 724-742-6999

No matter which method is used to reach FORE Support, customers should be ready to provide the following:

- A support contract ID number
- The serial number of each product in question
- All relevant information describing the problem or question